

CDC'S ETS MEDIA CAMPAIGN

The Environmental Protection Agency released its risk assessment on environmental tobacco smoke (ETS) on January 7, 1993. Simultaneously, the Centers for Disease Control (CDC) in the Department of Health and Human Services launched an ETS media campaign consisting of television announcements, print advertisements, and a package of handout materials meant to aid the public in anti-tobacco activities. The CDC campaign is fraught with serious distortions and inaccuracies. This paper briefly describes what is objectionable in CDC's claims with regard to ETS.

Claim: that "workers exposed to secondhand smoke on the job are 34 per cent more likely to get lung cancer."

Response: The CDC advertisement does not say where this figure comes from, but it appears to be based on claims in a recent ETS study by Fontham and her co-workers that contains data on non-smoking women in the workplace. What CDC neglects to disclose is that there are twelve additional studies reporting data on women exposed to ETS in the workplace, and none came up with a statistically significant increase in lung cancer risk. Additionally, when the results of all of the relevant studies are combined, the pooled result shows no increased risk of lung cancer in the workplace. It should

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also be kept in mind that, given the weakness of this workplace data base, EPA itself did not base any claims on it in its risk assessment. It is clear that CDC has focused on one isolated study that is inconsistent with the rest of the relevant work in this area.

Claim: that "last year 3000 people died of lung cancer due to secondhand smoke."

Response: CDC has taken this assertion directly from the EPA risk assessment. There are many fundamental problems with this claim. Perhaps most significant is that EPA, in pooling the results from the U.S.-based epidemiologic studies on ETS and lung cancer that looked at the situation of non-smoking women living with smoking spouses, consciously left out the most recent study, which is the largest study of its kind that has been carried out to date. This study reported no increased risk of lung cancer for the women who were observed. Likewise, when the data from this most recent study are included in the pooled estimate, the result is not statistically significant -- which means that it is not possible to tell whether ETS exposure increases the risk of lung cancer or not.

Claim: that many of the constituents of ETS are found in the air at toxic waste disposal sites.

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Response: This plainly is an alarmist statement. The basic point is that the components in ETS are not unique to ETS but in fact are found all over. ETS is the product of a combustion process, and as such it contains many of the same elements that are produced by other combustion processes. Cooking at home or in restaurants, for example, produces constituents that are also found in ETS -- and, for that matter, at toxic waste sites. So CDC's claim simply makes no sense scientifically: it says nothing useful about ETS.

Claim: that "restaurants that allow smoking can have six times the pollution of a busy highway."

Response: No source is given for this assertion, and the EPA risk assessment makes no such claim. The key point here is that both ETS and the motor vehicle exhaust encountered near busy roads are complex chemical mixtures. There is no way to make any direct comparisons between the two: they have various different constituents and they behave very differently. On the other hand, it can be instructive to take a look at some of the individual constituents that such mixtures may have in common. Take carbon monoxide, for example. Studies of this compound in indoor air have concluded that CO comes mainly from engine exhaust entering from outside and from such indoor sources as cooking, such that any additional contribution from ETS appears negligible.

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Claim: that ETS exposure results in the hospitalization of 11,000 children per year.

Response: This claim comes from the EPA risk assessment; it relates to children less than 18 months old who have lower respiratory infections. There are problems with EPA's treatment of the relevant scientific data that call this estimate into question. EPA's review of the scientific literature was incomplete; a number of relevant articles that were inconsistent with the agency's conclusion were not taken into account. Also, both the studies evaluated and EPA's review of them did not pay proper attention to a number of important factors, such as children's diet, health care, and parents' socioeconomic status, that need to be adequately ruled out before a reliable conclusion on ETS can be reached. Only if these factors were handled appropriately would we know whether ETS exposure is a real health concern in children.

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